ABSTRACT

The period required to start a rope-start, two-cycle engine is reduced by enabling the engine's firing sequence to be initiated immediately upon determining the absolute rotational position of the engine and before determining the engine's direction of rotation. The rotational direction of the engine is then determined, and the firing sequence is disabled if the engine is counter-rotating. In this manner, the firing sequence is enabled much sooner in the engine's cycle than if the engine's rotational direction were determined before the firing sequence is enabled. The engine therefore starts more quickly. The method is particularly useful in battery-less engines which experience a delay in start-up due to the fact that the engine must rotate through at least part of a revolution before generating enough electrical power to operate the computer controlling operation of the engine. It is also particularly useful in short-pull engines in which manual actuation of a rope or other manually-powered starting mechanism drives the engine to rotate through no more than three-to-five revolutions.